Classification: Unit Objectives

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Bio 307

By the end of this unit, the student will be able to:

1. Identify and use proper binomial nomenclature when naming species.
2. Outline the benefits of the binomial nomenclature system.
3. List and order the different taxonomic levels.
4. Apply the concept of parsimony when analyzing a phylogenetic tree.
5. Differentiate between monophyletic, polyphyletic, and prophylactic groupings.
6. Compare and contrast between the three domains.
7. Explain the role of derived characters in constructing cladograms.
8. Explain how further knowledge of DNA changed how some cladograms had initially been constructed.
9. Argue for or against classifying organisms.
10. Interpret relatedness by looking at a phylogenetic tree.
11. Differentiate between the kingdoms based on derived characters.
12. Describe important developmental landmarks.
13. Create a cladogram based on shared characteristics (\*\*\*this objective to be tested through a project).